

A SCUTELLARIA (LAMIACEAE) NEW TO NORTH CAROLINA AND A KEY TO THE SMALL-FLOWERED CAROLINA CONGENERS

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Native to South America, *Scutellaria racemosa* Pers. (South American skullcap) has been collected sporadically in the southeastern United States but has not been reported for North Carolina by Radford et al. (1968) or Kral (1981). Listed as an obligate wetland species by Reed (1988), *S. racemosa* has primarily been found in coastal plain communities and was previously only known from Texas, Louisiana, Alabama, Florida, Georgia, and South Carolina (Godfrey & Wooten 1981; Kral 1981; Allen 1983; Jones & Coile 1988; Tobe et al. 1998; Wunderlin & Hansen 2000). During field work, Joe Neal discovered a population of an unknown weed on the grounds of a nursery in Chatham County, in the lower Piedmont of North Carolina. Live plants, collected from the site on 4 Dec 1998, were grown out in a greenhouse at North Carolina State University and identified as *Scutellaria racemosa* based on fertile material. Representative material of this collection was prepared for deposit at NCSC in Dec 2000. A subsequent site visit, also in Dec 2000, yielded additional voucher material (see voucher specimens below). Based on observations by Neal, the population has been established since at least 1996. Plants were found spreading at the edges of nursery ground cloths and greenhouses, as well as around a nearby pond. Soils appear to be persistently moist to wet, due to regular irrigation. A search of nearby forests revealed that the population has started encroaching in natural areas only within reach of the irrigation system. Voucher specimens are deposited at BHO, NCSC, and USCH.

Voucher specimens: U.S.A. **North Carolina. Chatham Co.:** Specimen from potted plant collected 4 Dec 1998 from 2925 NC Hwy 751 and grown in North Carolina State University greenhouse by Joseph Neal, 1 Dec 2000, Krings & Neal 365 (NCSC); 2925 NC Hwy 751, field collection from nursery, specifically from fertilized pots of shrubs kept in enclosed greenhouse space and receiving regular irrigation, 6 Dec 2000, Krings & Neal 366 (BHO, NCSC, USCH).

Scutellaria racemosa Pers. (Fig. 1) can be distinguished from its southeastern congeners by the hastate leaves (Fig. 2, C). In the Carolinas, it is one of only four species exhibiting corollas 7 mm long or less (see key below). Worldwide, it is apparently one of only two skullcaps displaying consistently hastate leaves

(Paton 1990). The other species, *S. hastifolia* L., is native to W Europe and exhibits an erect habit, flowers greater than 2 cm long, and brown nutlets with a prominent median band. *Scutellaria racemosa* on the other hand, exhibits a trailing to weakly ascending habit, flowers typically 4 mm or less long, and brown nutlets lacking a median band (Fig. 1; description).

KEY TO SMALL-FLOWERED *SCUTELLARIA*
(COROLLAS ≤ 7 MM LONG) IN THE CAROLINAS

1. Larger leaves hastate, 1.3–3.2 cm long; corollas white to lavender or purple, 2–4 mm long. _____ ***S. racemosa*** Pers.
1. Larger leaves not hastate, 0.6–12 cm long; corollas white to lavender or violet, 3–7 mm long
 2. Petioles > 4 mm long; leaves 3–12 cm long, the apices typically acuminate; flowers in axillary racemes, the bracts much reduced. _____ ***S. laterifolia*** L.
 2. Petioles < 3 mm long; leaves ≤ 3 cm long, the apices acute to blunt; flowers solitary in the axils, or somewhat racemose, the bracts resembling stem leaves and only somewhat reduced
 3. Principal leaves ovate, rounded to slightly cordate, ≥ 2.5 cm long. _____ ***S. nervosa*** Pursh
 3. Principal leaves ovate to lance-ovate, rounded to slightly cordate or not, ≤ 2 cm long or less _____ ***S. parvula*** Michx.

SYNONYMY AND SPECIES DESCRIPTION

Scutellaria racemosa Pers., Syn. Pl. 2:136. 1807. (**Fig. 1**). TYPE: collected near Montevideo, Paraguay *Commerson s.n.* (HOLOTYPE: P).

Scutellaria bonariensis Willd. ex Benth., Linnaea 11:345. 1837.

Scutellaria hastata Larrañaga, Escritos de Don Damaso Antonio Larrañaga 2:87. 1923.

Scutellaria heterophylla Willd. ex Benth., Linnaea 11:345. 1837.

Scutellaria rojasii Briq., Bull. de l'Herbier Boissier, sér. 2, 7:600. 1907.

Scutellaria rumicifolia Kunth, Nov. Gen. Sp. 2:324. 1817.

Colonial, low herbaceous perennials with slender rhizomes; stems 4-angulate, glabrous to puberulent, trailing to weakly ascending (to 1 ft.), typically several from base; leaves opposite, 3–5 veined from base, glabrous or minutely puberulent on both surfaces, the uppermost typically narrowly-lanceolate or deltate and toothed or lobed basally, 1–4 mm broad, 5–12 mm long, the lower narrowly to broadly hastate, 5–20 mm broad, 13–32 mm long, apices retuse or, less frequently, rounded; flowers solitary, axillary, pedicels 2–4 mm long, puberulent; calyces campanulate, puberulent to glabrate with age, green to purplish, with a protuberance on the distal surface (scutellum), 1.8–2 mm long, enlarging to 3 mm long following anthesis and splitting horizontally; corolla white to lavender or purple, 2–4 mm long, 2-lipped, the upper concave, hoodlike, the lower spreading, purple or pink spotted; stamens 4; nutlets brown, obovoid, lacking median band, ca. 0.5 mm in diam.

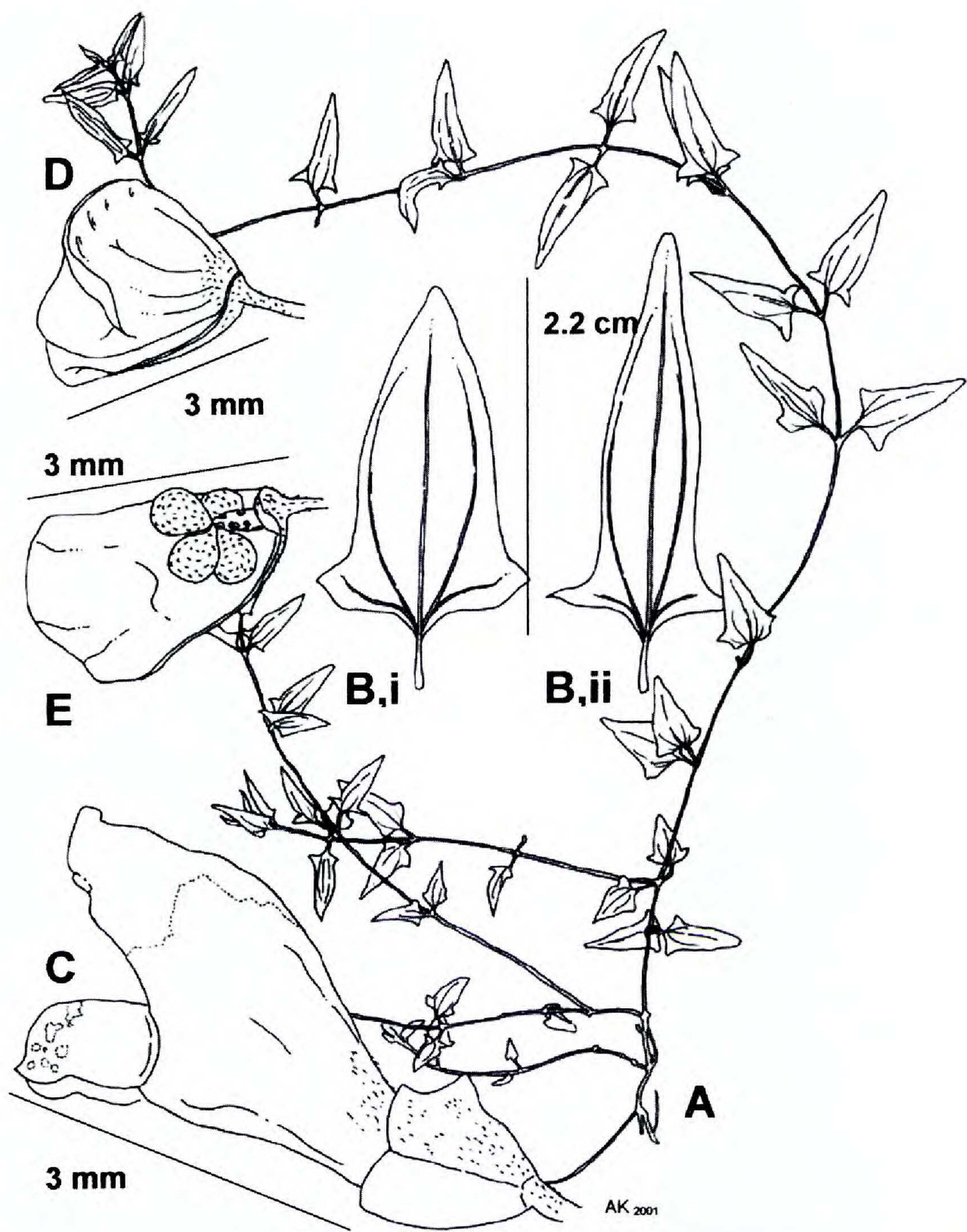


FIG. 1. *Scutellaria racemosa* Pers. (Lamiaceae): **A.** Habit; **B.** i–ii. Leaf variation; **C.** Flower; **D.** Calyx; **E.** Dehiscent calyx and seeds. A–B based on *Krings* 371 (NCSC). C based on *Radford* 46268 (FLAS). D–E based on *Godfrey* 73437 (FLAS).

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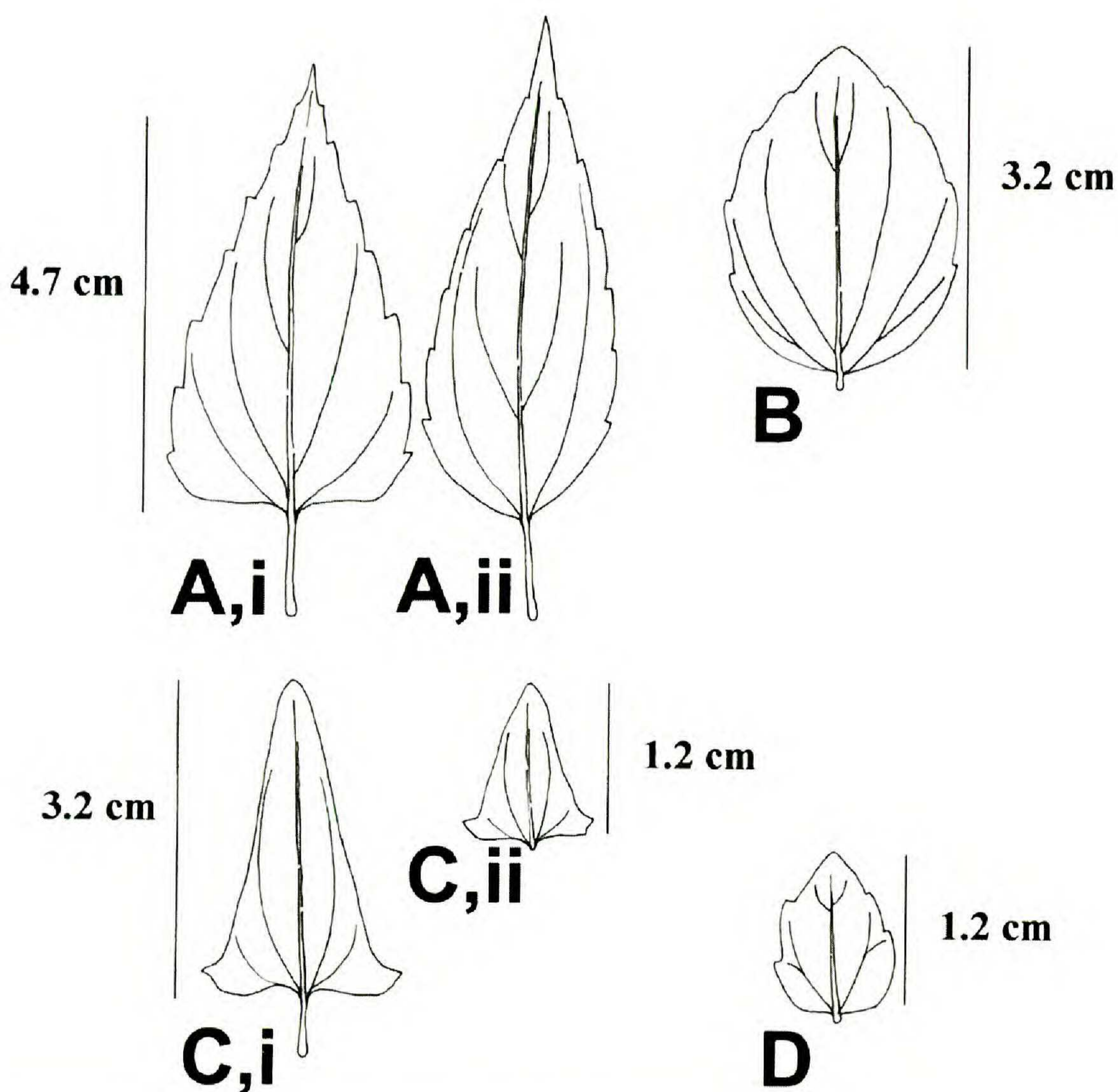


FIG. 2. Comparative leaf morphology of the four Carolina species of *Scutellaria* exhibiting corollas ≤ 7 mm long. **A. i:** *Scutellaria laterifolia* L., M.E. Wharton 3331 (NCSC); **ii:** *Scutellaria laterifolia* L., W.H. Duncan 23451 (NCSC). **B.** *Scutellaria nervosa* Pursh., E.A. Bartholomew W1941-1016 (NCSC). **C. i:** *Scutellaria racemosa* Pers., Krings & Neal 366 (NCSC); **ii:** *Scutellaria racemosa* Pers., Palacios-Cuezzo 497 (NCSC). **D.** *Scutellaria parvula* Michx., Kral 55372 (NCSC).

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